

## PATENT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING  
SUBMISSION OR TRANSMITTAL  
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

To:

BILLINGS, Lucy, J.  
Incyte Pharmaceuticals, Inc.  
3174 Porter Drive  
Palo Alto, CA 94304  
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 25 July 2000 (25.07.00)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference PF-0636 PCT	
International application No. PCT/US99/26742	
International publication date (day/month/year) 18 May 2000 (18.05.00)	
Applicant INCYTE PHARMACEUTICALS, INC. et al	International filing date (day/month/year) 12 November 1999 (12.11.99)  Priority date (day/month/year) 12 November 1998 (12.11.98)

- The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- An asterisk(\*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, **the attention of the applicant is directed** to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, **the attention of the applicant is directed** to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
12 Nove 1998 (12.11.98)	09/191,280	US	18 Janu 2000 (18.01.00)
07 Dece 1998 (07.12.98)	09/206,647	US	18 Janu 2000 (18.01.00)
08 Marc 1999 (08.03.99)	60/123,404	US	22 May 2000 (22.05.00)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. (41-22) 740.14.35	Authorized officer  Christine Carrié  Telephone No. (41-22) 338.83.38
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**PCT**D INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau

## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>7</sup> :</b> <b>C12N 15/12, C07K 14/705, C12Q 1/68, A61K 38/17, C07K 16/18</b>		<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 00/28032</b> <b>(43) International Publication Date:</b> 18 May 2000 (18.05.00)																				
<b>(21) International Application Number:</b> PCT/US99/26742 <b>(22) International Filing Date:</b> 12 November 1999 (12.11.99)			<b>(71) Applicant (for all designated States except US):</b> INCYTE PHARMACEUTICALS, INC. [US/US]; 3174 Porter Drive, Palo Alto, CA 94304 (US).																				
<b>(30) Priority Data:</b> <table border="0"><tr><td>09/191,280</td><td>12 November 1998 (12.11.98)</td><td>US</td></tr><tr><td>Not furnished</td><td>12 November 1998 (12.11.98)</td><td>US</td></tr><tr><td>09/206,647</td><td>7 December 1998 (07.12.98)</td><td>US</td></tr><tr><td>Not furnished</td><td>7 December 1998 (07.12.98)</td><td>US</td></tr><tr><td>60/123,404</td><td>8 March 1999 (08.03.99)</td><td>US</td></tr></table>			09/191,280	12 November 1998 (12.11.98)	US	Not furnished	12 November 1998 (12.11.98)	US	09/206,647	7 December 1998 (07.12.98)	US	Not furnished	7 December 1998 (07.12.98)	US	60/123,404	8 March 1999 (08.03.99)	US	<b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> TANG, Y., Tom [CN/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). CORLEY, Neil, C. [US/US]; 1240 Dale Avenue #30, Mountain View, CA 94040 (US). GUEGLER, Karl, J. [CH/US]; 1048 Oakland Avenue, Menlo Park, CA 94025 (US). YUE, Henry [US/US]; 826 Lois Avenue, Sunnyvale, CA 94087 (US). BAUGHN, Mariah, R. [US/US]; 14244 Santiago Road, San Leandro, CA 94577 (US). LAL, Preeti [IN/US]; 2382 Lass Drive, Santa Clara, CA 95054 (US). HILLMAN, Jennifer, L. [US/US]; 230 Monroe Drive #12, Mountain View, CA 94040 (US). BANDMAN, Olga [US/US]; 366 Anna Avenue, Mountain View, CA 94043 (US). AZIMZAI, Yalda [US/US]; 2045 Rock Springs Drive, Hayward, CA 94545 (US). AU-YOUNG, Janice [US/US]; 1419 Kains Avenue, Berkeley, CA 94702 (US).					
09/191,280	12 November 1998 (12.11.98)	US																					
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60/123,404	8 March 1999 (08.03.99)	US																					
<b>(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Applications</b> <table border="0"><tr><td>US</td><td>09/191,280 (CIP)</td></tr><tr><td>Filed on</td><td>12 November 1998 (12.11.98)</td></tr><tr><td>US</td><td>Not furnished (CIP)</td></tr><tr><td>Filed on</td><td>12 November 1998 (12.11.98)</td></tr><tr><td>US</td><td>09/206,647 (CIP)</td></tr><tr><td>Filed on</td><td>7 December 1998 (07.12.98)</td></tr><tr><td>US</td><td>Not furnished (CIP)</td></tr><tr><td>Filed on</td><td>7 December 1998 (07.12.98)</td></tr><tr><td>US</td><td>60/123,404 (CIP)</td></tr><tr><td>Filed on</td><td>8 March 1999 (08.03.99)</td></tr></table>			US	09/191,280 (CIP)	Filed on	12 November 1998 (12.11.98)	US	Not furnished (CIP)	Filed on	12 November 1998 (12.11.98)	US	09/206,647 (CIP)	Filed on	7 December 1998 (07.12.98)	US	Not furnished (CIP)	Filed on	7 December 1998 (07.12.98)	US	60/123,404 (CIP)	Filed on	8 March 1999 (08.03.99)	<b>(74) Agents:</b> BILLINGS, Lucy, J. et al.; Incyte Pharmaceuticals, Inc., 3174 Porter Drive, Palo Alto, CA 94304 (US).
US	09/191,280 (CIP)																						
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US	60/123,404 (CIP)																						
Filed on	8 March 1999 (08.03.99)																						
			<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).																				
			<b>Published</b> With international search report.																				
			<b>(88) Date of publication of the international search report:</b> 16 November 2000 (16.11.00)																				
<b>(54) Title:</b> HUMAN CELL SURFACE RECEPTOR PROTEINS																							
<b>(57) Abstract</b> <p>The invention provides human cell surface receptor proteins (HCSRPs) and polynucleotides which identify and encode HCSRPs. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating or preventing disorders associated with expression of HCSRPs.</p>																							

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
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DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

# INTERNATIONAL SEARCH REPORT

International Application No  
PC1/US 99/26742

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C12N15/12 C07K14/705 C12Q1/68 A61K38/17 C07K16/18

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C12N C07K C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category <sup>a</sup>	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 18456 A (UNIVERSITY OF CALIFORNIA) 7 May 1998 (1998-05-07) the whole document, especially residues 1-29 in SEQ ID NO:7 ---	1-16,19
X	WO 92 14750 A (UNIVERSITY OF CALIFORNIA ;COR THERAPEUTICS INC) 3 September 1992 (1992-09-03) the whole document, especially nucleotides 166-312 in Figure 1A ---	1-16,19
X	WO 94 05695 A (UNIVERSITY OF NEW YORK) 17 March 1994 (1994-03-17) the whole document, especially sequence 31 in figure 8B(2) --- -/-	1,2,15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### <sup>a</sup> Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

9 March 2000

Date of mailing of the international search report

25. 07. 00

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

CUPIDO, M

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/26742

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category <sup>2</sup>	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	EMBL/GenBank/DDBJ databases SEQ ID AC008515:Homo sapiens chromosome 5 clone CTC-455F7 4 August 1999 DOE Joint Genome Institute XP002132666 compare nucleotides 40760-41260 with nucleotides 516-1 in SEQ ID NO:14 -----	3-6,9-11

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 99/26742

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claim 19 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the composition.
2. ☒ Claims Nos.: 17, 18 and 20  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

*see additional sheets*

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-20 (all partly)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: 1-20 (all partly)

Polypeptide comprising an amino acid sequence of SEQ ID NO:1, fragments and variants thereof, polynucleotides encoding them, methods of detecting related sequences, vectors and cells comprising said sequences and their use to produce a polypeptide, corresponding pharmaceutical compositions and antibodies.

2. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:2

3. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:3

4. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:4

5. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:5

6. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:6

7. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:7

8. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:8

9. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:9

10. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:10

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

11. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:11

12. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:12

13. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:13



## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 17,18 and 20

Claims 17, 18 and in part 20 refer to an antagonist and agonist of the polypeptides without giving a true technical characterisation. Moreover, no such compounds are defined in the application. In consequence, the scope of said claims is ambiguous and vague, and their subject-matter is not sufficiently disclosed and supported (Articles 5 and 6 PCT). No meaningful search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the results to be achieved.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

on patent family members

International Application No

PCT/US 99/26742

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9818456	A	07-05-1998	US 5892014 A EP 0948323 A	06-04-1999 13-10-1999
WO 9214750	A	03-09-1992	US 5256766 A US 5688768 A AU 665752 B AU 1456892 A CA 2104394 A EP 0572553 A JP 6508742 T NZ 241666 A US 6024936 A US 5759994 A US 5856448 A US 5849507 A US 5798248 A	26-10-1993 18-11-1997 18-01-1996 15-09-1992 20-08-1992 08-12-1993 06-10-1994 26-07-1995 15-02-2000 02-06-1998 05-01-1999 15-12-1998 25-08-1998
WO 9405695	A	17-03-1994	AU 4855393 A US 5508384 A	29-03-1994 16-04-1996

# PATENT COOPERATION TREATY

## PCT

REC'D 12 NOV 2001

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

14

Applicant's or agent's file reference PF-0636 PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/26742	International filing date (day/month/year) 12 NOVEMBER 1999	Priority date (day/month/year) 12 NOVEMBER 1998
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant INCYTE PHARMACEUTICALS, INC.		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets.  
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  
 These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  06 JUNE 2000	Date of completion of this report  05 OCTOBER 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer <i>Eileen B. O'Hara</i> EILEEN B. O'HARA
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0196

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/26742

## I. Basis of the report

1. With regard to the elements of the international application:\*

☐ the international application as originally filed

☒ the description:  
 pages 1-70, as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of

☒ the claims:  
 pages 71-72, as originally filed  
 pages NONE, as amended (together with any statement) under Article 19  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of

☒ the drawings:  
 pages NONE, as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of

☒ the sequence listing part of the description:  
 pages 1-23, as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  
 These elements were available or furnished to this Authority in the following language  which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☒ contained in the international application in printed form.  
☒ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE  
☒ the claims, Nos. NONE  
☒ the drawings, sheets/fig NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/US99/26742

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been and will not be examined in respect of:

☐ the entire international application.

☒ claims Nos. 17, 18 and 20

because:

☐ the said international application, or the said claim Nos. \_ relate to the following subject matter which does not require international preliminary examination (*specify*).

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. \_ are so unclear that no meaningful opinion could be formed (*specify*).

☒ the claims, or said claims Nos. 17, 18 and 20 are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos. \_.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/26742

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. statement

Novelty (N)

Claims NONE

YES

Claims 1-16, 19

NO

Inventive Step (IS)

Claims NONE

YES

Claims 1-16, 19

NO

Industrial Applicability (IA)

Claims 1-16, 19

YES

Claims NONE

NO

### 2. citations and explanations (Rule 70.7)

Claims 1-16 and 19 lack novelty under PCT Article 33(2) as being anticipated by WO 98/18456, WO 98/14750 or WO 94/05695.

Claims 1-6 and 19 encompass fragments of polypeptides of SEQ ID NOS: 1-13, polynucleotides encoding them, vectors, host cells, methods of detecting the polynucleotides and methods of producing the polypeptides recombinantly, and methods of treatment. WO 98/18456, WO 98/14750 and WO 94/05695 disclose fragments of the above polypeptides, since a fragment can be a single amino acid, as well as polynucleotides encoding them, vectors, host cells WO 98/18456, WO 98/14750 or WO 94/05695.

Claims 1-16 and 19 meet the criteria set out in PCT Article 33(4), because the prior art does not teach or fairly suggest the full length polypeptides of SEQ ID NOS: 1-13 and polynucleotides encoding them. The claimed invention has industrial applicability in that the encoding nucleic acids can be used to produce the encoded polypeptides or to screen for related nucleic acids, and the polypeptides can be used to make antibodies and to screen for compounds that bind to it.

----- NEW CITATIONS -----

NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/26742

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Sheet 10

Continuation of: Boxes I - VIII

**CLASSIFICATION:**

The International Patent Classification (IPC) and/or the National classification are as listed below:  
IPC(7): C12N 1/21; C07K 14/705, 16/18; A61K 38/17; C07H 21/04 and US Cl.: 530/350; 536/23.5; 435/252.3, 514/2

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/26742

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C07K14/705 C12Q1/68 A61K38/17 C07K16/18

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	WO 98 18456 A (UNIVERSITY OF CALIFORNIA) 7 May 1998 (1998-05-07) the whole document, especially residues 1-29 in SEQ ID NO:7 ---	1-16,19
X	WO 92 14750 A (UNIVERSITY OF CALIFORNIA ;COR THERAPEUTICS INC) 3 September 1992 (1992-09-03) the whole document, especially nucleotides 166-312 in Figure 1A ---	1-16,19
X	WO 94 05695 A (UNIVERSITY OF NEW YORK) 17 March 1994 (1994-03-17) the whole document, especially sequence 31 in figure 8B(2) --- -/-	1,2,15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### ° Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

9 March 2000

Date of mailing of the international search report

25. 07. 00

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

CUPIDO, M



# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/26742

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	EMBL/GenBank/DDBJ databases SEQ ID AC008515:Homo sapiens chromosome 5 clone CTC-455F7 4 August 1999 DOE Joint Genome Institute XP002132666 compare nucleotides 40760-41260 with nucleotides 516-1 in SEQ ID NO:14 -----	3-6,9-11

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 99/26742

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claim 19 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the composition.
2. ☒ Claims Nos.: 17, 18 and 20  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-20 (all partly)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: 1-20 (all partly)

Polypeptide comprising an amino acid sequence of SEQ ID NO:1, fragments and variants thereof, polynucleotides encoding them, methods of detecting related sequences, vectors and cells comprising said sequences and their use to produce a polypeptide, corresponding pharmaceutical compositions and antibodies.

2. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:2

3. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:3

4. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:4

5. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:5

6. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:6

7. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:7

8. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:8

9. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:9

10. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:10

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

11. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:11

12. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:12

13. Claims: 1-20 (all partly)

Idem as subject 1 but limited to SEQ ID NO:13

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box 1.2

Claims Nos.: 17,18 and 20

Claims 17, 18 and in part 20 refer to an antagonist and agonist of the polypeptides without giving a true technical characterisation. Moreover, no such compounds are defined in the application. In consequence, the scope of said claims is ambiguous and vague, and their subject-matter is not sufficiently disclosed and supported (Articles 5 and 6 PCT). No meaningful search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the results to be achieved.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/26742

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9818456 A	07-05-1998	US 5892014 A EP 0948323 A	06-04-1999 13-10-1999
WO 9214750 A	03-09-1992	US 5256766 A US 5688768 A AU 665752 B AU 1456892 A CA 2104394 A EP 0572553 A JP 6508742 T NZ 241666 A US 6024936 A US 5759994 A US 5856448 A US 5849507 A US 5798248 A	26-10-1993 18-11-1997 18-01-1996 15-09-1992 20-08-1992 08-12-1993 06-10-1994 26-07-1995 15-02-2000 02-06-1998 05-01-1999 15-12-1998 25-08-1998
WO 9405695 A	17-03-1994	AU 4855393 A US 5508384 A	29-03-1994 16-04-1996

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>PF-0636 PCT</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/US 99/ 26742</b>	International filing date (day/month/year) <b>12/11/1999</b>	(Earliest) Priority Date (day/month/year) <b>12/11/1998</b>
Applicant <b>INCYTE PHARMACEUTICALS, INC. et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.  
☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :
- ☒ contained in the international application in written form.
- ☒ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

- ☐ as suggested by the applicant.
- ☐ because the applicant failed to suggest a figure.
- ☐ because this figure better characterizes the invention.

☐ None of the figures.